Rates of Work-Related Deaths In Construction and Other Industries

In five industrial countries, reported work-related death rates for the construction industry ranged from 5.2 per 100,000 full-time-equivalent workers in Sweden to 14.2 in the United States, in 1998 (chart 34a). (The rates were adjusted using a definition of full-time work of 2,000 hours per year.)

In spite of the adjustment for full-time hours, it is still difficult to interpret these comparisons because of differences in inclusions and exclusions in the data for the various countries. For instance, the figures for Germany exclude structural steel erection (ironworkers), electrical installers, and sheet metal workers. A death that occurs within 30 days of an injury is considered work-related. The Dutch figures include workers doing new construction, renovation, and demolition on a construction site, but not maintenance of an existing building. Data from Germany, Sweden, and the United States include the self-employed, but estimates from the Netherlands do not and it is unclear whether the self-employed are included in the statistics for Japan.

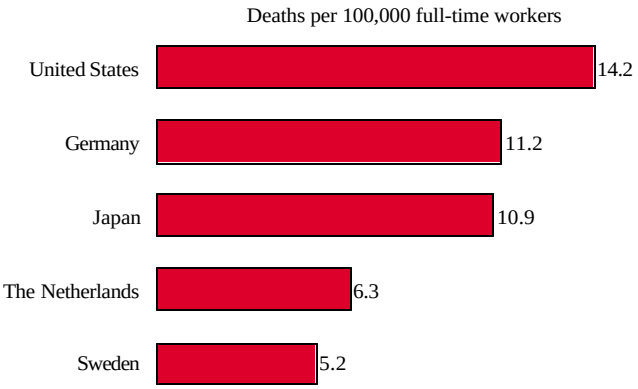
In the United States, when work-related death rates are compared, the construction industry has the fourth-highest rate (chart 34b). At the same time, construction had the largest number of work-related deaths of any industry in 1999 – 1,228 – because of the large number of people employed in the industry, 7% of the workforce.[1] And construction's 20.3% share of work-related deaths is disproportionately high.

Within construction, the death rate for ironworkers (structural metal workers in the BLS occupational code) was 6 times higher than the rate for all construction occupations (chart 34c). Although the rate for construction laborers was roughly half as high, more laborers than any other occupation were killed on the job in the three years 1997-99 — 989 compared with 131 ironworkers, who had the highest death rate — because there are so many more laborers. Because death rates vary from year to year for occupations and because the numbers in some occupations are small, the use of a three-year average can give more statistically reliable estimates.

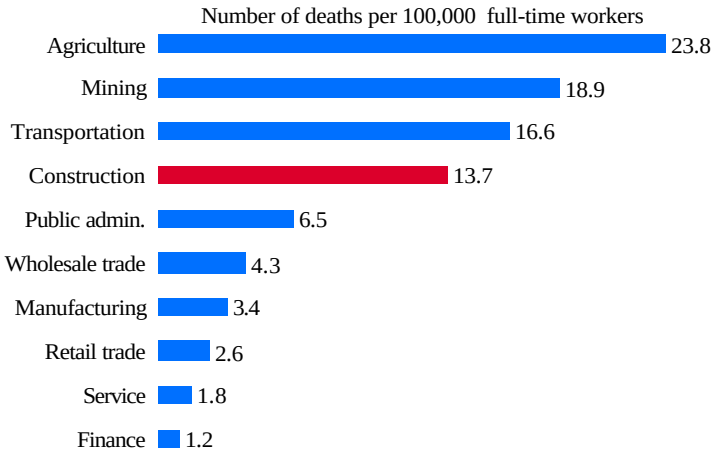
On charts 34b and 34c, the numbers of deaths were obtained from the Census of Fatal Occupational Injuries conducted by the Bureau of Labor Statistics. The Census of Fatal Occupational Injuries is the result of an agreement between the Bureau of Labor Statistics and the 50 states, which collect the information. BLS publishes the national results. The census is based on information from state governments, medical examiner reports, news reports, and other sources. The work-relatedness of all deaths must be verified by at least two sources. Deaths occurring while commuting to work are not counted, but deaths while traveling on a work assignment are. This census is the most complete information available in the United States on work-related deaths.

1. The count of 1,228 deaths is based on BLS revised data, December 2001.

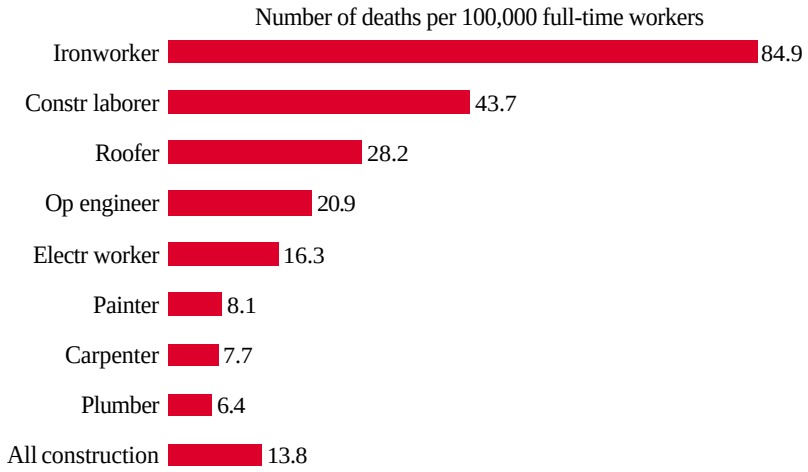
34a. Rate of deaths from injuries in construction, selected countries, 1998



34b. Rate of work-related deaths from injuries, by industry, 1999



34c. Rate of work-related deaths from injuries, selected construction occupations, 1997-99 average



Note: All charts - Because many construction workers work part time at construction, safety and health statistics are defined in terms of full-time equivalents to allow comparisons with other industries. Full-time work is defined as 2,000 hours worked per year.

Chart 34a - Germany figures exclude structural steel erection (ironworkers), electrical installers, and sheet metal workers, and include deaths that occur within 30 days of injuries. The Netherlands figures include workers doing new construction, renovation, and demolition on a construction site, but not maintenance of an existing building.

Chart 34b - In 1999, of 6.054 deaths from work-related injuries, 1,228 (20.3%) were in construction.

Chart 34c - A total of 3,571 deaths in 1997-99, which averages to 1,190 per year.

Source: Chart 34a - Risana Chowdhury, The Center to Protect Workers' Rights, based on Bureau of Labor Statistics and Current Population Survey data; Harald Wilhelm, Bau-Berufsgenossenschaften, Frankfurt, Germany; Masahiko Kunishima, University of Tokyo, Japan; J.C. van Duivenbooden, Arbouw, the Netherlands; Lotta Lundholm, Swedish Work Environment Authority (Arbetsmiljöverket), Solna, Sweden.

Chart 34b - Bureau of Labor Statistics News Release (Census of Fatal Occupational Injuries), August 2001 and http://data.bls.gov Series ID : CFU00M09080, CFU00M10080, CFU00M20080, CFU00M30080, CFU00M40080, CFU00M50080, CFU00M60080, CFU00M70080, CFU00M80080, and population estimates calculated by Risana Chowdhury, The Center to Protect Workers' Rights, based on the 1999 Current Population Survey.

Chart 34c - Based on data from the Bureau of Labor Statistics for the Census of Fatal Occupational Injuries and the Current Population Survey; calculations by Risana Chowdhury, The Center to Protect Workers' Rights. Ironworkers includes only structural metal workers (no welders); laborers include only construction laborers (no helpers); plumbers and carpenters include apprentices; electrical workers include electricians, their apprentices, and electrical power line installers.